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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 09/905,193 | 07/16/2001 | Frank Burkert | 1454.1076 | 3054 |
| 21171 | 7590 | 03/15/2006 | | EXAMINER |
| STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005 | | | HARPER, KEVIN C | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2666 | |

DATE MAILED: 03/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|-----------------|----------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 09/905,193 | BURKERT ET AL. |
| | Examiner | Art Unit |
| | Kevin C. Harper | 2666 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 19 December 2005.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-6 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1,2,5 and 6 is/are rejected.
 7) Claim(s) 3 and 4 is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 16 July 2001 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

| | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>7/01</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 19, 2005 has been entered.

Response to Arguments

Applicant's arguments, filed December 15, 2005 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Maxemchuck et al.

Drawing

1. The drawing is objected to because the third packet under the transmitter should indicate that the packet includes data. Currently, the packet shows only virtual padding with a flag. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the

remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claims 1-4 are objected to because in claim 1, lines 6-7, "the data packets into" should be --the stored data packets into--, and in penultimate line of claim 1, "one equal-sized redundant packet" should be --one equal-sized redundancy packet--, for clarity.

3. Claim 4 is objected to because obtaining reproduced data packets has been previously described in claim 1. For clarity, examiner suggests in lines 2-6, --wherein, if no packet was lost, removing the flag byte from the reproduced data packets, and wherein, if at least one packet was lost and this error can be corrected, removing the flag byte and any subsequent padding data from the reproduced data packets.--.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-2 and 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maxemchuck et al. (US 2004/0078624) in view of Carr (US 2002/0141585) and Levine et al. (US 6,000,053).

4. Regarding claims 1-2, Maxemchuck discloses a method for protecting against packet losses (fig. 1, item 110) in a packet-oriented data network (106). The method comprises storing data packets in a memory (fig. 1A, item 130A; fig. 2A) with inherent end-of-packet information (within the IP/UDP/RTP packet - fig. 2A; see inherency description related to Carr below) and transmitting data packets from a transmitter to a receiver with an inherent item of end-of-packet information in each data packet (para. 61, lines 1-5; para. 72, lines 1-8) prior to generating redundancy packets (para. 135, lines 4-19; note: the retransmission includes redundancy packets not generated before the original data was transmitted - para. 136, lines 1-11). The method also comprises obtaining reproduced data packets from the received data packets that include inherent end-of-packet information if not packets have been lost (para. 79, lines 1-2). The inherency of end-of-packet information in the invention of Maxemchuck is shown by Carr, which discloses standardized IP/UDP/RTP packets including length information in the headers (fig. 2, step 250; fig. 8, items 524 and 536).

5. However, Maxemchuck does not disclose, if a packet is lost, converting the stored data packets into equal-sized packets each having a length equal to a longest one of the data packets by filling with padding data and then converting the equal sized data packets into redundancy packets by coding, converting all data packets to equal sized reconstructed packets and obtaining the reproduced packets from equal-sized reconstructed packets. Levine discloses a transmitter for providing forward error correction by generating equal-sized packets (claimed redundancy packets; fig. 3A) and a receiver for reconstructing lost data packets by expanding received packets to an equal size by using padding information (col. 5, lines 5-13) and using the corresponding redundant equal-sized packet received from the transmitter to reconstruct the data packet (fig. 5; col. 5, lines 10-15). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have forward error correction by using block coding redundancy packets in the invention of Maxemchuck in order to allow for parity checking of packets not of equal length in a network (Levine, col. 1, lines 23-29 and 39-42).

6. Regarding claims 5-6, Maxemchuck discloses an apparatus for protecting against packet losses (fig. 1, item 110) in a packet-oriented data network (106). The apparatus comprises a transmitter to form and transmit data packets (para. 72, lines 1-8) including inherent end-of-packet information (within the IP/UDP/RTP packet - fig. 2A; see inherency description related to Carr below) prior to generating redundancy packets (para. 135, lines 4-19; note: the retransmission includes redundancy packets not generated before the original data was transmitted - para. 136, lines 1-11). The apparatus also comprises a receiver to receive the data packets from the transmitter. The inherency of end-of-packet information in the invention of Maxemchuck is shown by Carr, which discloses standardized IP/UDP/RTP packets including length information (fig. 2, step 250; fig. 8, items 524 and 536).

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7. However, Maxemchuck does not disclose removing the end-of-packet information. Carr discloses removing end-of-packet information (para. 74, lines 6-8 and 16-19). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to remove end-of-packet information in the invention of Maxemchuck in order to decapsulate/parse received packets for processing (Carr, para. 74, lines 6-8 and 16-19).

8. Further, Maxemchuck in view of Carr does not disclose expanding data packets with aid of padding information to form equally long data packets before the end of packet information is removed or reconstructing the data packet using at least a corresponding redundant equal-sized packet received from the transmitter, where the transmitter generates redundant equal-sized packets. Levine discloses a transmitter for providing forward error correction by generating equal-sized packets (claimed redundancy packets; fig. 3A) and a receiver for reconstructing lost data packets by expanding received packets to an equal size by using padding information (col. 5, lines 5-13) and using the corresponding redundant equal-sized packet received from the transmitter to reconstruct the packet (fig. 5; col. 5, lines 10-15). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have forward error correction by using block coding redundancy packets in the invention of Maxemchuck in order to allow for parity checking of packets not of equal length in a network (Levine, col. 1, lines 23-29 and 39-42).

Allowable Subject Matter

9. Claim 3-4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and overcoming the claim objections above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Harper whose telephone number is 571-272-3166. The examiner can normally be reached weekdays from 11:00 AM to 7:00 PM ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham, can be reached at 571-272-3179. The centralized fax number for the Patent Office is 571-273-8300. For non-official communications, the examiner's personal fax number is 571-273-3166 and the examiner's e-mail address is kevin.harper@uspto.gov.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications associated with a customer number is available through Private PAIR only. For more information about the PAIR system, see portal.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kevin C. Harper

March 11, 2006